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Division of Water Resources

# PROPOSED ADMINISTRATIVE REGULATIONS

K.S.A. 82A-301 THRU 305A  
K.S.A. 24-126









# Reasons for new regulations

- ✗ Advances in engineering
- ✗ Age of current regulations
- ✗ Ease of use

# Outline

- ✖ Fundamentals
- ✖ Channel changes
- ✖ Stream obstructions
- ✖ Levees and fills



# Fundamentals

- ✗ Application requirements
- ✗ Benchmarks
- ✗ Hydraulics
- ✗ Unreasonable effect



**REQUIRED**

# Acceptable application

1

completed application form

set of plans

set of specifications, if needed

**Fee**

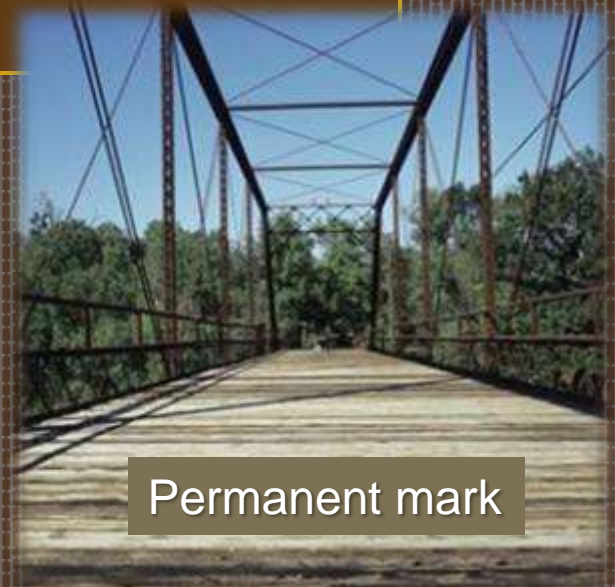
and

**Timeline**



# Stream obstructions benchmarks

1. 36" rebar
2. Permanent reference mark
3. Mark on permanent structure



## Requirement changes

- ✗ 0.1' tolerance
- ✗ Witnessed

# Levee benchmarks

Class A

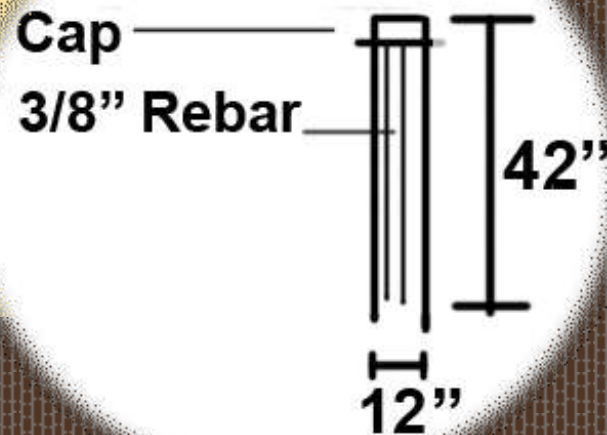
Class B

**REBAR**

Class C  
Concrete  
capped  
with survey  
marker

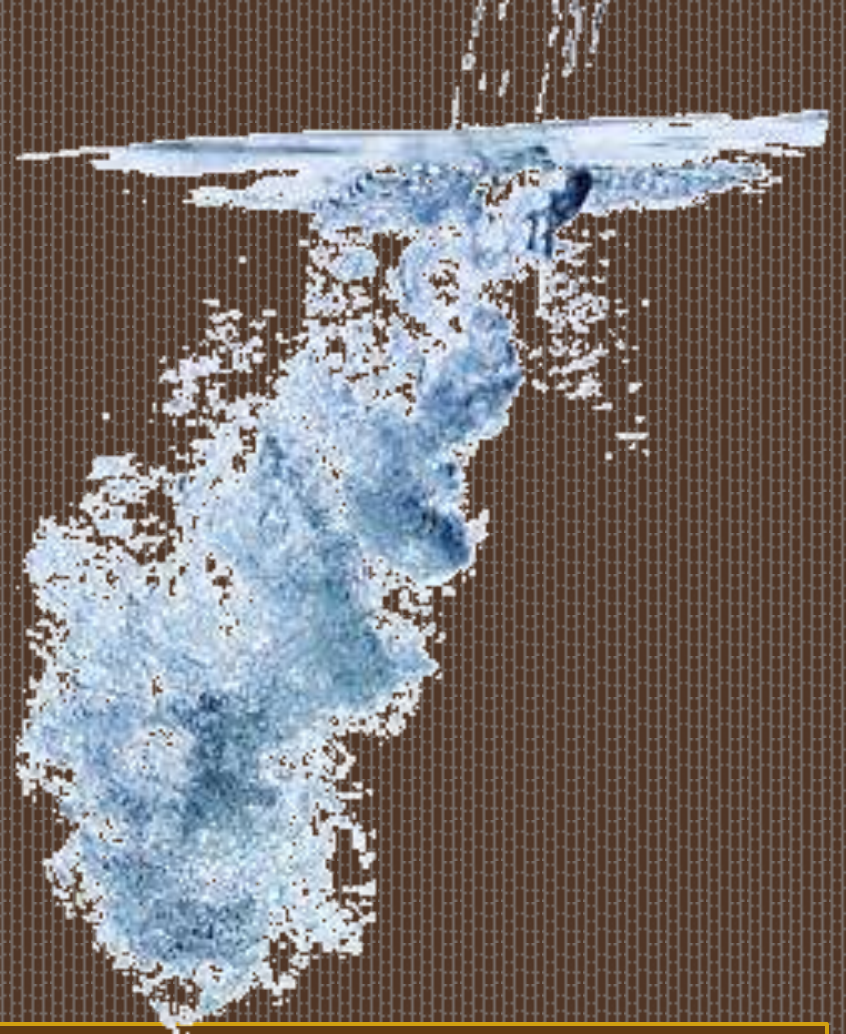
## Requirement changes

- × 0.1 ft tolerance
- × Witnessed





Only for  
obstructions  
providing access  
to surface water  
diverted under  
water right



Temporary obstructions  
to divert water

CLARIFICATION

- ✖ Rational Formula (up to 640 acres)
- ✖ USGS Estimation of Peak Streamflows for Unregulated Rural Streams in Kansas
- ✖ NRCS TR-55
- ✖ NRCS TR-20
- ✖ Stream gage data
- ✖ Other methods with approval

Peak discharge

# Unreasonable effect

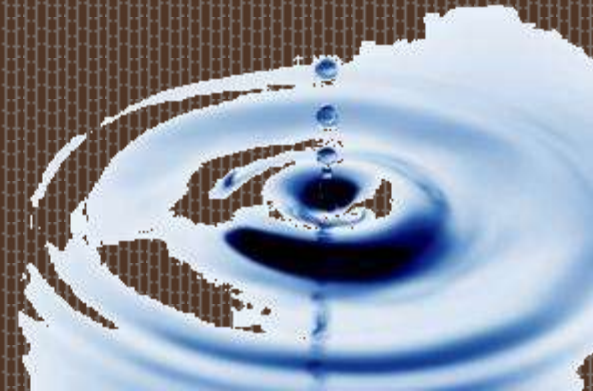
**No water surface increase in floodway**

**No more than 1 foot increase elsewhere**

**Increase measured anywhere  
on another's property**

For:

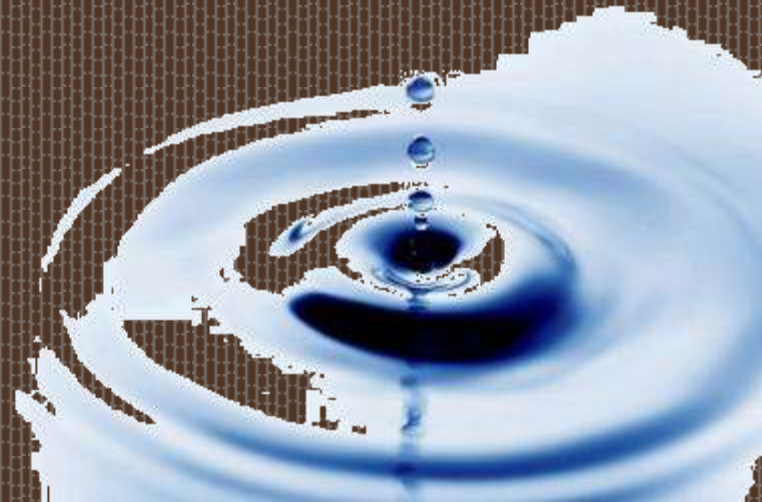
- ✓ 50% chance event
- ✓ Overtopping event
- ✓ 1% chance event





# Unreasonable effect

- ✗ Cumulative impact similarly restricted but since 2008
- ✗ Velocity increase restricted to 15% at 50% chance event



# Maintenance

Requires  
projects to  
be properly  
maintained





# Channel changes





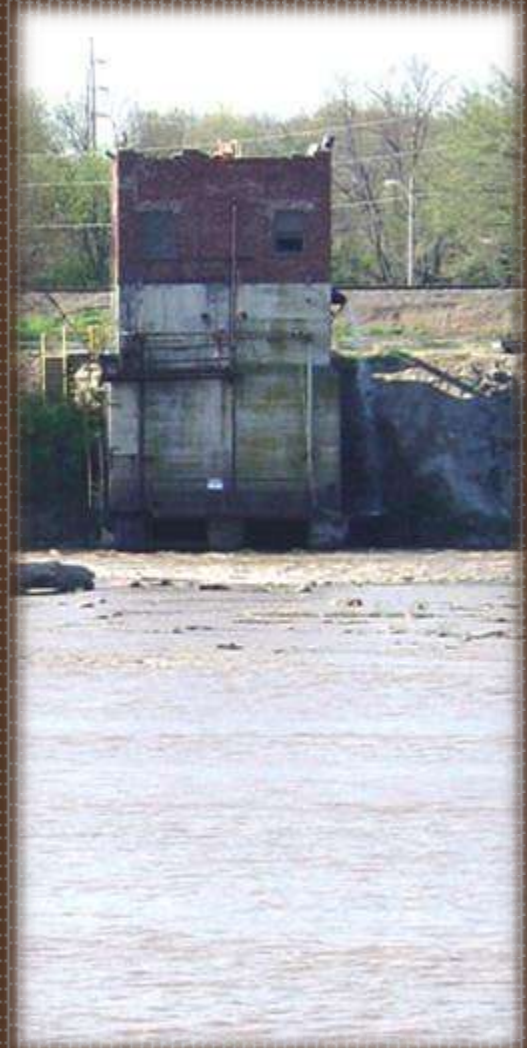
# Channel changes

- ✗ Plans
- ✗ Requirements for illegal changes
- ✗ When change becomes natural channel
- ✗ Design requirements and limitations
- ✗ Requirements to be permitted

# Channel changes

## Plans

- ✗ Location map
- ✗ Detailed plan view
- ✗ Channel profile
- ✗ Cross sections



# Channel Changes

## Requirements for illegal changes

- ✗ Modify plan requirements
- ✗ Has surveyed profile and new channel sections
- ✗ Has best information on former channel profile and sections
- ✗ Provides inspection report



# Channel changes

## Changed channels

*Any channel change in existence since 1978*

- ✗ Considered natural channel
- ✗ Doesn't need permit
- ✗ Has permit still in effect  
(if permitted)

# Channel changes

## Design requirements

- ✗ Cannot decrease conveyance
- ✗ Side slope no steeper than 2:1
- ✗ Permissible velocity
  - + Compared to previous condition
  - + Compared to table
  - + For bank full flow

# Channel Changes

## Additional requirements to be permitted

- ✗ Cannot cause unreasonable effect
- ✗ Provide any easements
- ✗ Install benchmark



# Channel changes

## Maintenance

- × Protect
  - + Safety
  - + Property
- × Comply with permit
- × Maintain design conveyance

# Channel changes

## When permit is required

Permit not required if **not** removing silt, soil, sand, gravel and similar materials.

Permitted channels can remove soil-like materials to original lines.

Natural channels cannot widen stream or lower grade line.

# CHANNEL CHANGES



Questions?  
Observations?



# Stream obstructions





# Stream obstructions

## Maintenance

- × Protect
  - + Safety
  - + Property
- × Comply with permit
- × Maintain design conveyance
- × Ensure structure's integrity

# Stream obstructions

## Emergency approval

- ✗ Verbal or written
- ✗ 30 days
  - + To provide application
  - + To remove structure



# Stream obstructions

## Classes

- ✗ General permits
- ✗ Governmental road and bridge projects
- ✗ Small impoundments
- ✗ Aggregate mining
- ✗ Miscellaneous

# General permits

- ✗ Bridge and culvert replacements
- ✗ Aggregate removal
- ✗ Pipeline crossings



- ✗ Non-permanent bridge and culvert replacements
- ✗ Minor stream obstructions
- ✗ Bank stabilization



# GP bridge and culvert replacement projects

- ✗ Delete “no plan” option
- ✗ Limit channel change to 200 feet
- ✗ Remove vegetated strip requirement



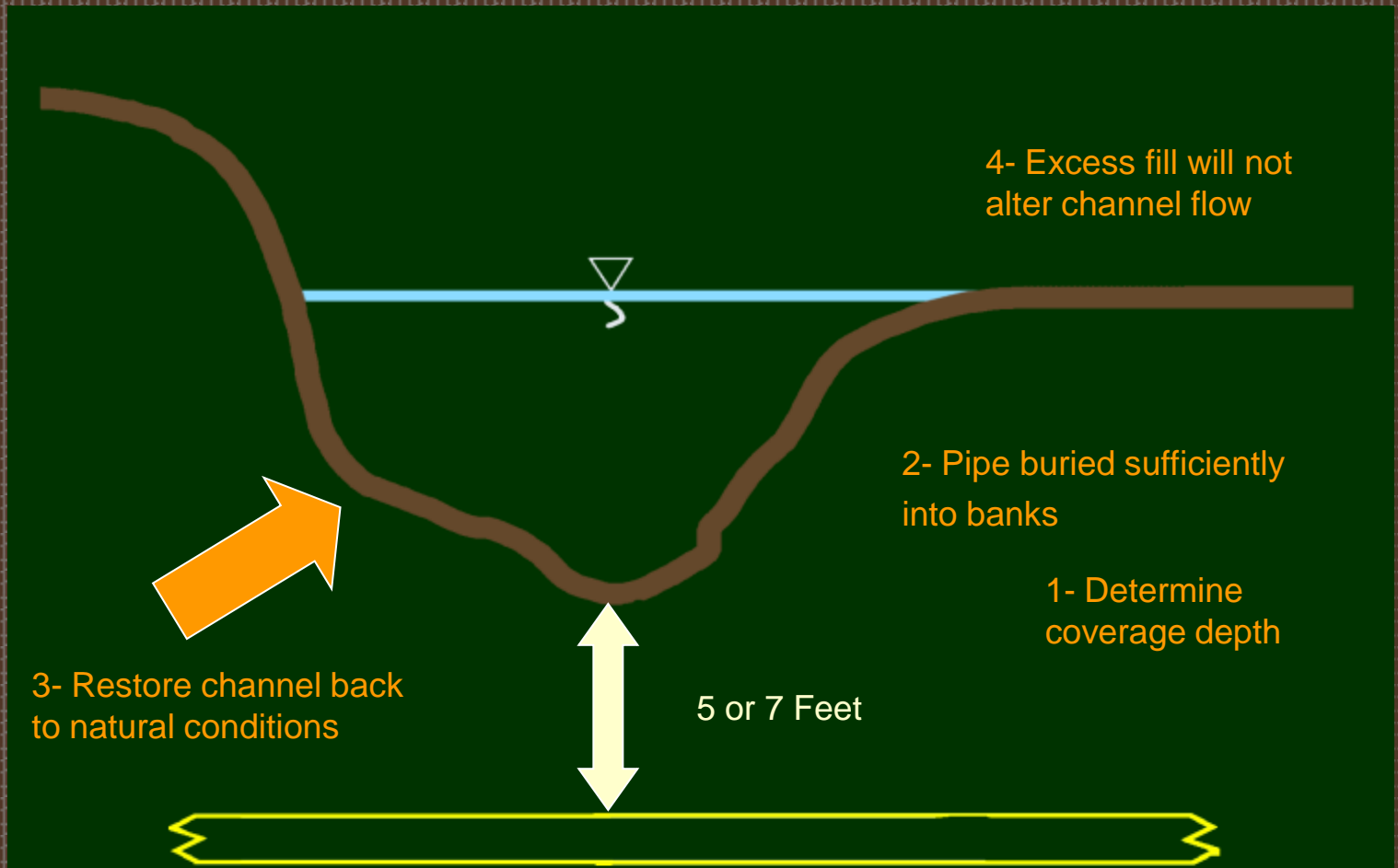
## GP aggregate removal

- ✗ Added specific plan requirements
- ✗ Changed minimum spacing to 100 feet
- ✗ Simplified rules for navigable streams



# GP pipeline crossing

## Clarify minimum depth requirement



# GP non-permanent bridge and culvert replacement projects

- ✖ Replacements for 1 year or less
- ✖ Plan requirements:
  - + Location map
  - + Typical cross section



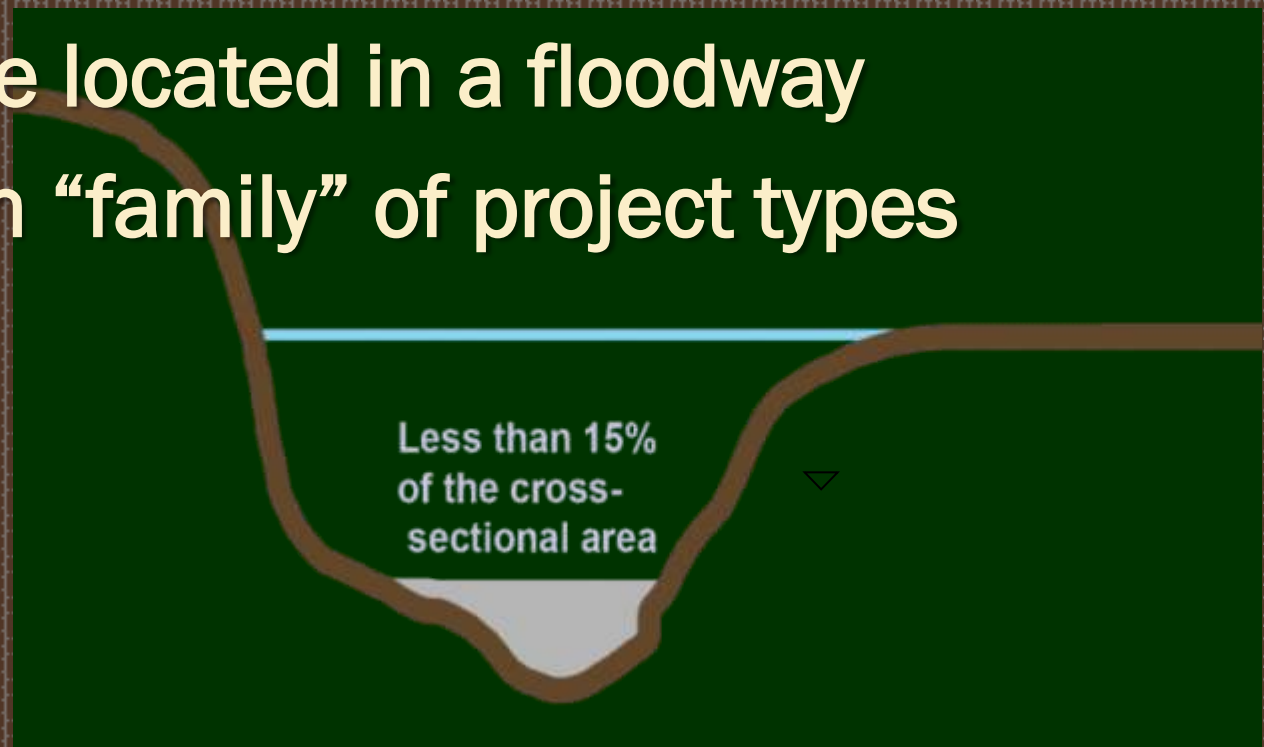
# GP non-permanent bridge and culvert replacement projects

- ✗ Pass 50% flood without overtopping
- ✗ Carry mean annual flow in pipe within 100 feet of original structure
- ✗ Limit channel disturbance to 200 feet
- ✗ Take place within one year

# GP minor stream obstructions

## *Definition*

- ✗ Decreases cross sectional area of channel less than 15%
- ✗ Can not be located in a floodway
- ✗ Must be in “family” of project types



## GP minor stream obstructions

Some structures that qualify:

- ✗ Weirs
- ✗ Low-water crossings
- ✗ Intake and outfall structures
- ✗ Pipeline crossings
- ✗ Center pivot wheel crossings



# GP minor stream obstructions

## Application

- × Appropriate form
- × Location map
- × Cross section sketch



## GP bank stabilization

For channel modifications and minor obstructions constructed as part of a bank stabilization project

- × Longitudinal peaked stone toe protection
- × Artificial riffles
- × Check dams

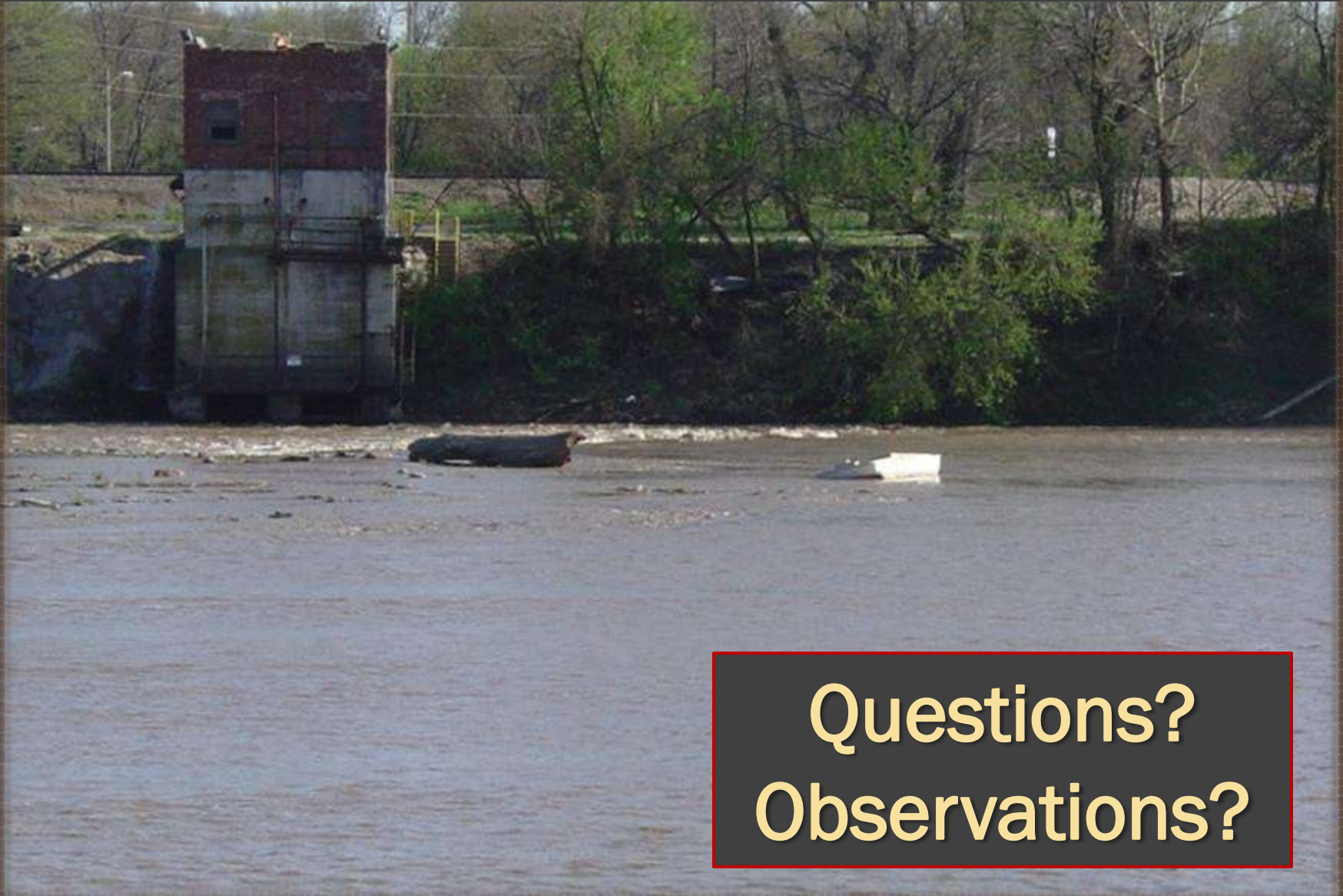
# GP bank stabilization

## Application

- ✗ Appropriate form
- ✗ Location map
- ✗ Channel cross section sketch
- ✗ Cross section of all obstructions



# GENERAL PERMITS



Questions?  
Observations?







# Stream obstructions

## Classes

- × General permits
- × Governmental road and bridge projects
- × Small impoundments
- × Aggregate mining
- × Miscellaneous

# GOVERNMENTAL ROAD AND BRIDGE PROJECTS

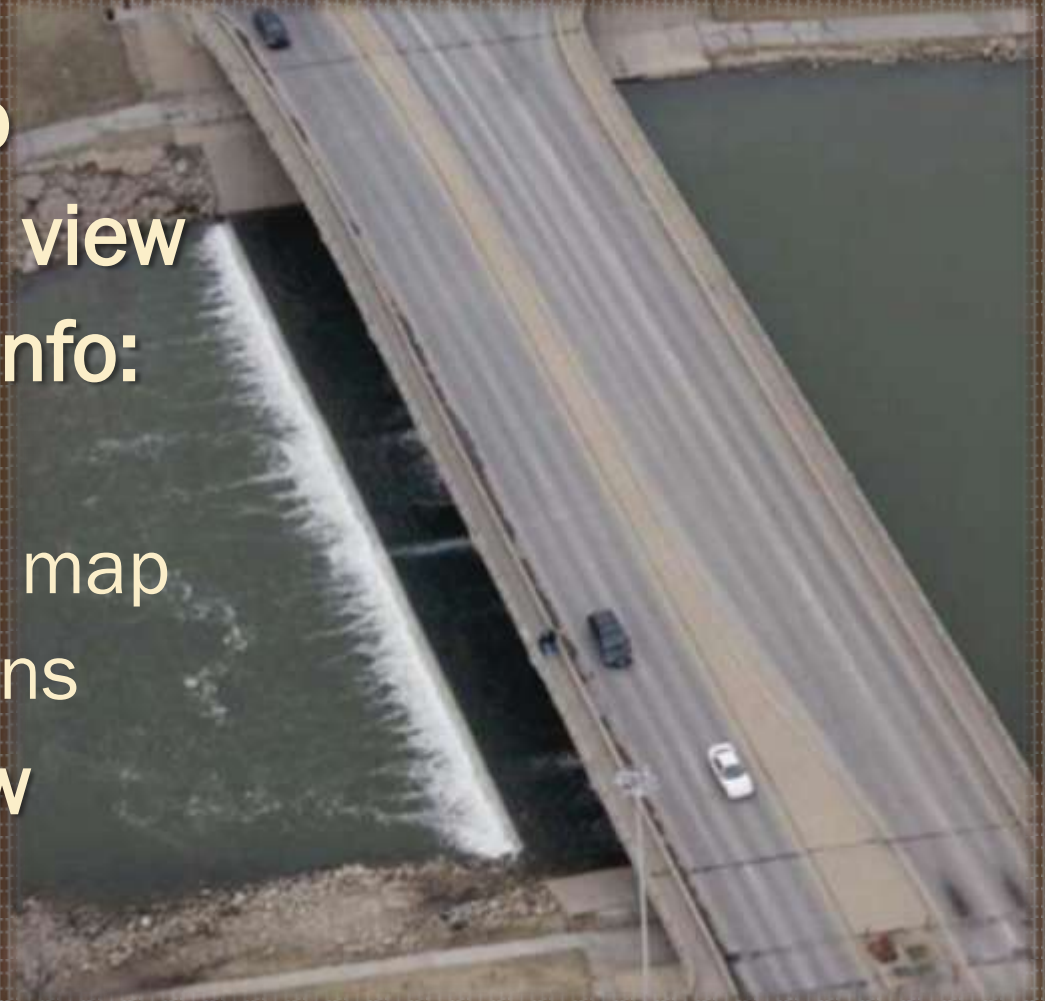
- ✗ Plans
- ✗ Hydraulic analysis
- ✗ Requirements permitted



# GOVERNMENTAL ROAD AND BRIDGE PROJECTS

## Plans

- ✗ Location map
- ✗ Detailed plan view
- ✗ Topographic info:
  - + Profile
  - + Topographic map
  - + Cross sections
- ✗ Elevation view



# GOVERNMENTAL ROAD AND BRIDGE PROJECTS

## Hydraulic analysis

- × Determine

- + Peak rate
- + Water surface elevation
- + Velocity

- × For

- + 1% chance event
- + Overtopping event
- + 50% chance event





# GOVERNMENTAL ROAD AND BRIDGE PROJECTS

## Additional requirements to be permitted

- ✗ No unreasonable effect
- ✗ No change of location or rate of flow on another's property
- ✗ Easements
- ✗ Benchmark

# GOVERNMENTAL ROAD AND BRIDGE PROJECTS



Questions?  
Observations?

# SMALL IMPOUNDMENTS

- ✗ Applies to structures on streams that
  - + Aren't dams
  - + If failed, would likely cause injury or death
- ✗ Will be designed and constructed similarly to small dams





# Aggregate production





# Aggregate production

- × Plans
- × Benchmarks and control points
- × Buffer zones
- × Revoked regulations
- × Setback for pits
- × Requirements to be permitted

# Aggregate production

## Additional requirements to be permitted

- × No unreasonable effect
- × Easements
- × Meet all plan requirements
- × Stockpiles meet Levee Law requirements

# SMALL IMPOUNDMENTS AND AGGREGATE PRODUCTION



Questions?  
Observations?



# Miscellaneous projects





# MISCELLANEOUS PROJECTS

- ✗ Plans
- ✗ Plans for projects with minimal impact
- ✗ Hydraulic analysis
- ✗ Requirements to be permitted

# MISCELLANEOUS PROJECTS

## Plans

- ✗ Location map
- ✗ Detailed plan view
- ✗ Cross section and profile
- ✗ Tie to bed and banks
- ✗ Topographic map of reservoir

# MISCELLANEOUS PROJECTS

## Plans for projects with minimal impact

For projects that

- ✗ Don't impound water on another
- ✗ Don't create erosion
- ✗ Don't elevate groundwater levels
  
- ✗ Location map
- ✗ Cross section sketch of project

# MISCELLANEOUS PROJECTS

## Hydraulic analysis

### ✗ Flow rates

- + Base flood (1% chance)
- + 50% chance
- + Overtop

### ✗ Pre- and post-project

- + Water surface elevations
- + Velocities



# MISCELLANEOUS PROJECTS

## Additional requirements to be permitted

- ✗ No unreasonable effect
- ✗ Channel work > 400 ft permitted separately
- ✗ Easements
- ✗ Benchmark

## MISCELLANEOUS PROJECTS



Questions?  
Observations?

# Levee Law





# LEVEE LAW

- ✗ Distinction between levee and fill
- ✗ Share setback and preparer minimums, plus:

Requirements Plan

Requirements Application

# LEVEE LAW

## New requirements for levees

- ✖ Specifications (B and C only)
- ✖ Design report (B and C only)
- ✖ Hazard class clarification



# LEVEE LAW

## Emergency levee repairs

- ✗ Verbal or written request and approval
- ✗ 60 days to provide
  - + Project description
  - + Exact location
  - + Application and plans





# LEVEE LAW

## Fills

- ✗ No specifications
- ✗ Tabulate design criteria
- ✗ Small fill exemption:
  - + 1600 cy in fringe
  - + 160 cy no floodway delineation
- ✗ Incidental roadway fill exemption clarification

# LEEVE LAW

## Maintenance

- × Protect
  - + Safety
  - + Property
- × Comply with permit
- × Ensure structure's integrity

# LEVEES AND FILLS



Questions?  
Observations?

# FORMAL PROCESS



- ✗ Presentation to Secretary
- ✗ Review by Department of Administration
- ✗ Review by Attorney General
- ✗ Notice of hearing
- ✗ Legislative committee review
- ✗ Hearing
- ✗ Adoption and publication



## INFORMAL COMMENT PERIOD

View draft regulations and comment  
at [www.ksda.gov/statutes/id/203](http://www.ksda.gov/statutes/id/203)



Can also comment  
by e-mail to  
[waterstructures@kda.ks.gov](mailto:waterstructures@kda.ks.gov)

